WEST Search History

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DATE: Saturday, August 14, 2004

Hide?	<u>Set</u> Name	Query	<u>Hit</u> Count
	DB=B	PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ	
	L31	L30 and (navigat\$4)	0
	L30	(20030001571 or 20020167315 or 20030004408 or 20030004410)	8
	L29	L28 and (phase or phasing or phased)	12
	L28	L27 and ((intermediat\$3 or middle or secondary or second or weight\$4 or another or additional) with imag\$4)	13
	L27	L26 and (imag\$4)	17
	L26	L25 and (correct\$4 or compensat\$4 or adjust\$4 or control\$4)	17
	L25	L24 and (sensor or senser or detect\$4 or receiv\$4 or reception)	17
	L24	L23 and (sensitiv\$4)	17
n	L23	12 and ((reduced or partial\$2 or limit\$3 or restrict\$3 or reduction or incomplet\$3 or undersampl\$3 or under-sampl\$3 or "under sampl\$3") with (field-of-view or FOV or "field of view" or region-of-interest or ROI or "region of interest" or "region of investigation" or region-of-investigation))	23
	L22	L21 and (navigat\$4)	15
	L21	114 or 116 or 119	106
	L20	L19 and (navigat\$4)	0
	L19	6512372	5
	L18	L16 and (navigat\$4)	9
	L17	L14 and (navigat\$4)	6
	L16	(6741880 or 6408201 or 6178346)	33
	L15	L14 and (navigat\$4)	6
	L14	(6492814 or 6489764 or 6487435 or 6486,671 or 6377045 or 6559642 or 6564082 or 6289232 or 5910728)	69
	L13	L12 and (full\$2 or entire\$2 or complet\$3)	8
	L12	L11 and ((intermediat\$3 or middle or secondary or second or weight\$4 or another or additional) with imag\$4)	8
	L11	L10 and (imag\$4)	8
	L10	L9 and (correct\$4 or compensat\$4 or adjust\$4 or control\$4)	8
	L9	L8 and (phase)	8
	L8	L7 and (sensor or senser or detect\$4 or receiv\$4 or reception)	11
	L7	L6 and (sensitiv\$4)	11
		L5 and ((reduced or partial\$2 or limit\$3 or restrict\$3 or reduction or	

L6	incomplet\$3 or undersampl\$3 or under-sampl\$3 or "under sampl\$3") with (field-of-view or FOV or "field of view" or region-of-interest or ROI or "region of interest" or "region of investigation" or region-of-investigation))	17
L5	L4 and (field-of-view or FOV or "field of view" or region-of-interest or ROI or "region of interest" or "region of investigation" or region-of-investigation)	109
L4	L3 and (reduced or partial\$2 or limit\$3 or restrict\$3 or reduction or incomplete or undersampl\$3 or under-sampl\$3 or "under sampl\$3")	947
L3	L2 and (matrix or array)	968
L2	L1 and (navigat\$4)	1758
L1	((magnetic adj resonance) or MRI or NMR)	185066

END OF SEARCH HISTORY



Hit List

Clear Generate Collection Print Fwd Refs Bkwd Refs
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Search Results - Record(s) 1 through 8 of 8 returned.

1. Document ID: US 20040039276 A1

Using default format because multiple data bases are involved.

L12: Entry 1 of 8

File: PGPB

Feb 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040039276

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040039276 A1

TITLE: Magnetic resonance imaging apparatus

PUBLICATION-DATE: February 26, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Ikezaki, Yoshikazu Tokyo JP

US-CL-CURRENT: 600/407

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw De
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2. Document ID: US 6741880 B1

L12: Entry 2 of 8 File: USPT May 25, 2004

US-PAT-NO: 6741880

DOCUMENT-IDENTIFIER: US 6741880 B1

TITLE: Method and apparatus for efficient stenosis identification and assessment

using MR <u>imaging</u>

DATE-ISSUED: May 25, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F. Rockville MD Ho; Vincent B. North Bethesda MD

Saranathan; Manojkumar Rockville MD

US-CL-CURRENT: 600/419; 324/300, 324/307, 382/128, 600/407, 600/410, 600/420

3. Document ID: US 6408201 B1

L12: Entry 3 of 8

File: USPT

Jun 18, 2002

US-PAT-NO: 6408201

DOCUMENT-IDENTIFIER: US 6408201 B1

TITLE: Method and apparatus for efficient stenosis identification in peripheral

arterial vasculature using MR imaging

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F.

Rockville

MD

Ho; Vincent B.

North Bethesda

US-CL-CURRENT: $\underline{600}/\underline{410}$; $\underline{324}/\underline{300}$, $\underline{324}/\underline{307}$, $\underline{382}/\underline{128}$, $\underline{600}/\underline{419}$, $\underline{600}/\underline{420}$

Full Title Citation Front Review Classification Cate Retained Citation Clarins NMC Draw D.

4. Document ID: US 6289232 B1

L12: Entry 4 of 8

File: USPT

Sep 11, 2001

US-PAT-NO: 6289232

DOCUMENT-IDENTIFIER: US 6289232 B1

TITLE: Coil array autocalibration MR imaging

DATE-ISSUED: September 11, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE COUNTRY

Jakob; Peter M.

Brookline Village

MA MA

Sodickson; Daniel K.

Cambridge

Griswold; Mark

Brookline

MA

US-CL-CURRENT: 600/410; 324/307, 324/309, 324/318, 324/322, 600/422

Full Title Citation Front Review Classification Date Reference Claims AWIC Draw Dr

5. Document ID: US 6178346 B1

L12: Entry 5 of 8

File: USPT

Jan 23, 2001

US-PAT-NO: 6178346

DOCUMENT-IDENTIFIER: US 6178346 B1

Record List Display Page 3 of 4

TITLE: Infrared endoscopic imaging in a liquid with suspended particles: method and

apparatus

DATE-ISSUED: January 23, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Amundson; David C.

Boulder

CO

80302

Hanlin; H. John

Louisville

· CO

80027

US-CL-CURRENT: 600/473; 348/77, 600/160, 600/342

Full Title Citation Front Review Classific	ation Date Reference	Claims KMC Draw De
☐ 6. Document ID: US 5910728.		
L12: Entry 6 of 8	File: USPT	Jun 8, 1999

US-PAT-NO: 5910728

DOCUMENT-IDENTIFIER: US 5910728 A

TITLE: Simultaneous acquisition of spatial harmonics (SMASH): ultra-fast imaging

with radiofrequency coil arrays

DATE-ISSUED: June 8, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE COUNTRY

Apr 7, 2004

Sodickson; Daniel Kevin

Cambridge

MA

US-CL-CURRENT: 324/309

Full Title Citation Front Review	Classification Date Reference	Claims KWC Dra
	·····	
7. Document ID: EP 139	1746 A2	
L12: Entry 7 of 8	File: EPAB	Feb 25, 2004

PUB-NO: EP001391746A2

DOCUMENT-IDENTIFIER: EP 1391746 A2

TITLE: Parallel magnetic resonance imaging using navigator echos

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	Document ID: 04017777 A	CN 1487305 A	, EP 139	1746 A2,	, US 200	40039276	A1, JP 2	200407353

File: DWPI

DERWENT-ACC-NO: 2004-182325

L12: Entry 8 of 8

DERWENT-WEEK: 200441

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TITLE: Magnetic resonance imaging (MRI) apparatus for parallel imaging of subject has post-image producing device, which forms image with full field-of-view based on produced intermediate image and phase-corrected sensitivity matrix

Full Title

Hit List

Clear Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

Search Results - Record(s) 1 through 8 of 8 returned.

1. Document ID: US 20040039276 A1

Using default format because multiple data bases are involved.

L13: Entry 1 of 8

File: PGPB

Feb 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040039276

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040039276 A1

TITLE: Magnetic resonance imaging apparatus

PUBLICATION-DATE: February 26, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Ikezaki, Yoshikazu Tokyo JP

US-CL-CURRENT: 600/407

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims NWC Draw De

2. Document ID: US 6741880 B1

L13: Entry 2 of 8 File: USPT May 25, 2004

US-PAT-NO: 6741880

DOCUMENT-IDENTIFIER: US 6741880 B1

TITLE: Method and apparatus for efficient stenosis identification and assessment

using MR imaging

DATE-ISSUED: May 25, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F. Rockville MD
Ho; Vincent B. North Bethesda MD
Saranathan; Manojkumar Rockville MD

US-CL-CURRENT: 600/419; 324/300, 324/307, 382/128, 600/407, 600/410, 600/420

Full: Title Citation Front Review Classification Date Reference Communication Claims KMC Draw. De

BEST AVAILABLE COPY

3. Document ID: US 6408201 B1

L13: Entry 3 of 8

File: USPT

Jun 18, 2002

US-PAT-NO: 6408201

DOCUMENT-IDENTIFIER: US 6408201 B1

TITLE: Method and apparatus for efficient stenosis identification in peripheral

arterial vasculature using MR imaging

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

CITY

STATE ZIP CODE

COUNTRY

Foo; Thomas K. F.

Rockville

MD

Ho; Vincent B.

North Bethesda

US-CL-CURRENT: 600/410; 324/300, 324/307, 382/128, 600/419, 600/420

Full: Title Citation Front Review Classification Date Reference Claims RMC Draw Do

4. Document ID: US 6289232 B1

L13: Entry 4 of 8

File: USPT

Sep 11, 2001

US-PAT-NO: 6289232

DOCUMENT-IDENTIFIER: US 6289232 B1

TITLE: Coil array autocalibration MR imaging

DATE-ISSUED: September 11, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE COUNTRY

Jakob; Peter M.

Brookline Village

MA

Sodickson; Daniel K.

Cambridge

MA

Griswold; Mark

Brookline

MA

US-CL-CURRENT: 600/410; 324/307, 324/309, 324/318, 324/322, 600/422

Full Title Citation Front Review Classification Date Reference Claims RMC Draw Do

5. Document ID: US 6178346 B1

L13: Entry 5 of 8

File: USPT

Jan 23, 2001

US-PAT-NO: 6178346

DOCUMENT-IDENTIFIER: US 6178346 B1

BEST AVAILABLE COPY

TITLE: Infrared endoscopic <u>imaging</u> in a liquid with suspended particles: method and apparatus

DATE-ISSUED: January 23, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Amundson; David C.

Boulder

CO

80302

Hanlin; H. John

Louisville

· co

80027

US-CL-CURRENT: 600/473; 348/77, 600/160, 600/342

Full Title Citation Front Review Classification Date Reference Claims KMC Draws Dr

6. Document ID: US 5910728 A

L13: Entry 6 of 8

File: USPT

Jun 8, 1999

US-PAT-NO: 5910728

DOCUMENT-IDENTIFIER: US 5910728 A

TITLE: Simultaneous acquisition of spatial harmonics (SMASH): ultra-fast imaging

with radiofrequency coil arrays

DATE-ISSUED: June 8, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Sodickson; Daniel Kevin

Cambridge

MA

US-CL-CURRENT: 324/309

Full Title Citation Front Review Classification Date Reference Claims KMC Draw Do

7. Document ID: EP 1391746 A2

L13: Entry 7 of 8

File: EPAB

Feb 25, 2004

PUB-NO: EP001391746A2

DOCUMENT-IDENTIFIER: EP 1391746 A2

TITLE: Parallel magnetic resonance imaging using navigator echos

Full Title Citation Front Review Classification Date Reference Citation Claims KMC Draw De

8. Document ID: CN 1487305 A, EP 1391746 A2, US 20040039276 A1, JP 2004073538 A, KR 2004017777 A

L13: Entry 8 of 8

File: DWPI

Apr 7, 2004

DERWENT-ACC-NO: 2004-182325

DERWENT-WEEK: 200441

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Magnetic resonance imaging (MRI) apparatus for parallel imaging of subject has post-image producing device, which forms image with full field-of-view based on produced intermediate image and phase-corrected sensitivity matrix

<u> </u>	Generate Collection Print Fwd Refs Bkwd Refs	Generate
Terr	n ·	Documents
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FUL	LL	1489177
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FUL	LLAB	1
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FUL	LLAG	1
FUL	LLAL	2
FUL	LLAM	224
FUL	LLAN	18
FUL	LLAO	1
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Previous Page	Next Pa	age	Go to	Doc#

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Clear Generate Collection Print Fwd Refs Bkwd Refs
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Search Results - Record(s) 1 through 6 of 6 returned.

1. Document ID: US 6675034 B2

Using default format because multiple data bases are involved.

L15: Entry 1 of 6

File: USPT

Jan 6, 2004

US-PAT-NO: 6675034

DOCUMENT-IDENTIFIER: US 6675034 B2

TITLE: Magnetic resonance imaging using direct, continuous real-time imaging for

motion compensation

DATE-ISSUED: January 6, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Sussman; Marshall S. Toronto CA
Wright; Graham A. Toronto CA
Cunningham; Charles H. Toronto CA

US-CL-CURRENT: <u>600/410</u>

FUI	īđ	e Citation Front Review Classification Date Reference Claims KMC Diable De	
************	***********		
,	2	Dogument ID: 115 6667618 B2	

1..... 2. Document ID: US 6667618 B2

L15: Entry 2 of 6 File: USPT Dec 23, 2003

US-PAT-NO: 6667618

DOCUMENT-IDENTIFIER: US 6667618 B2

TITLE: Method for the operation of a magnetic resonance apparatus, whereby

positional changes are acquired with orbital navigator echos

DATE-ISSUED: December 23, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Thesen; Stefan Meckenheim DE

US-CL-CURRENT: 324/309; 324/307

3. Document ID: US 6552540 B2

L15: Entry 3 of 6

File: USPT

Apr 22, 2003

COUNTRY

US-PAT-NO: 6552540

DOCUMENT-IDENTIFIER: US 6552540 B2

TITLE: Magnetic resonance method for forming a fast dynamic image

DATE-ISSUED: April 22, 2003

INVENTOR-INFORMATION:

Fuderer; Miha

NAME CITY STATE ZIP CODE

Eindhoven

US-CL-CURRENT: 324/309

Full Title Citation Front Review Clas	stication Date Reference	Claims KiniC i Drain De
4. Document ID: US 64075	49 B1	
L15: Entry 4 of 6	File: USPT	Jun 18, 2002

US-PAT-NO: 6407549

DOCUMENT-IDENTIFIER: US 6407549 B1

TITLE: Magnetic resonance signal acquiring method and apparatus, recording medium

and magnetic resonance imaging apparatus

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Uetake; Nozomu Tokyo JΡ Kosugi; Susumu Tokyo JP

US-CL-CURRENT: 324/307; 324/309, 324/322

Full Title Citation Front Review Clas	sification Date Reference	Claims KWC Draw D
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5. Document ID: US <u>62892</u>	32 B1	
L15: Entry 5 of 6	File: USPT	Sep 11, 2001

US-PAT-NO: 6289232

DOCUMENT-IDENTIFIER: US 6289232 B1

TITLE: Coil array autocalibration MR imaging

MA

DATE-ISSUED: September 11, 2001

INVENTOR-INFORMATION:

CITY STATE ZIP CODE COUNTRY NAME

Jakob; Peter M. Brookline Village

MA Sodickson; Daniel K. Cambridge Griswold; Mark Brookline ΜA

US-CL-CURRENT: $\underline{600}/\underline{410}$; $\underline{324}/\underline{307}$, $\underline{324}/\underline{309}$, $\underline{324}/\underline{318}$, $\underline{324}/\underline{322}$, $\underline{600}/\underline{422}$

Claims RMC Draw Do Full Title Citation Front Review Classification Date Reference 6. Document ID: US <u>5910728</u> A

File: USPT

L15: Entry 6 of 6

Jun 8, 1999

US-PAT-NO: 5910728

DOCUMENT-IDENTIFIER: US 5910728 A

TITLE: Simultaneous acquisition of spatial harmonics (SMASH): ultra-fast imaging

with radiofrequency coil arrays

DATE-ISSUED: June 8, 1999

INVENTOR-INFORMATION:

CITY STATE ZIP CODE COUNTRY NAME

Cambridge Sodickson; Daniel Kevin MA

US-CL-CURRENT: 324/309

Generate Collection Print Fwd Refs Bkwd F	Refs Generate
Term	Documents
NAVIGAT\$4	0
NAVIGAT	175
NAVIGATA	1
NAVIGATABLE	59
NAVIGATAION	1
NAVIGATBD	1
NAVIGATBR	5
NAVIGATC	2
NAVIGATDON	1
NAVIGATE	17529

NAVIGATED	4403
(L14 AND (NAVIGAT\$4)) PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	6

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Previous Doc Next Doc Go to Doc#

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L15: Entry 5 of 6 File: USPT Sep 11, 2001

DOCUMENT-IDENTIFIER: US 6289232 B1

TITLE: Coil array autocalibration MR imaging

Brief Summary Text (6):

Often, however, there is a tradeoff between spatial resolution and imaging time, since higher resolution images require a longer acquisition time. This balance between spatial and temporal resolution is particularly important in cardiac MR, where fine details of coronary artery anatomy, for example, must be discerned on the surface of a rapidly beating heart. A high-resolution image acquired over a large fraction of the cardiac cycle will be blurred and distorted by bulk cardiac motion, whereas a very fast image acquired in a shorter time may not have the resolution necessary to trace the course and patency of coronary arteries. Some of the fastest imaging sequences currently implemented, such as echo planar imaging (EPI), approach the goal of yielding images of reasonable resolution in a suitably short fraction of the cardiac cycle. Other approaches have also been tried to eliminate the effects of cardiac motion, including k-space segmentation, in which image acquisition is divided up over several cardiac cycles with ECG gating to ensure that the heart is in the same phase of systole or diastole during acquisition of each segment. Cine images of multiple cardiac phases may be pieced together with this technique, with partial acquisitions of the signal data for different phases occurring in each cardiac cycle. One problem with this class of techniques is that respiratory motion can change the position of the heart over the course of several cardiac cycles. Partial acquisitions will then be misregistered, and artifacts will result. In an attempt to eliminate or adjust for respiratory motion, breath holds, respiratory gating, and navigator echo gating techniques have all been tried, and each of these techniques has had some significant successes. Nevertheless, an imaging strategy which allowed high-resolution images to be acquired comfortably within one or two phases of the cardiac cycle would circumvent many of the difficulties and residual artifacts associated with these compensation techniques.

Detailed Description Text (3):

The invention is best understood in the context of the SMASH imaging technique mentioned above, which sets out to compute, from a given set of magnetic response signals received in a set of coils during one spatial encoding step, a plurality of synthesized signals which correspond to additional spatial encoding steps. While SMASH imaging is applicable to non-Fourier as well as Fourier imaging techniques, the formalism and terminology for Fourier imaging is commonly accepted and well understood, so the description of the present invention will be presented below as applied to the evaluation of coil sensitivities in a SMASH imaging process wherein the MRI processor fits coil sensitivities to produce spatial harmonic signals to fill additional lines in k-space, so that a sparse or reduced set of gradient conditioning steps may be used while still filling the entire data set. In what follows, it is shown that the set of optimal complex weights n.sub.l.sup.(m), necessary for SMASH postprocessing to determine distinctly offset signal lines can be determined using auto-calibration signals (ACS) which are acquired with a small number of additional conditioning or gradient steps, and serve as a form of navigator measurement. The ACS lines represent signals at intermediate positions in k-space, which are spatially encoded in a conventional manner using gradients. Moreover, the set of linear weights, n.sub.l.sup.(m) may be extracted automatically for each acquisition without the intermediate step of coil sensitivity measurements. These coefficients form a transformation which, applied to signals collected in one gradient step, produces multiple distinctly shifted lines of k-space. The transformation thus fills many lines of k-space from a reduced set of gradients.

Detailed Description Text (17):

The derivation of multiple lines of k-space data from uncalibrated coil signals and additional autocalibration signals is achieved as follows. It will be recalled that in SMASH, linear combinations of component coil signals are used to generate composite signals shifted by an amount (-m.DELTA.k.sub.y) in k-space. In AUTO-SMASH a few extra <u>navigator</u> ACS-lines are acquired during the actual scan which are exactly shifted by the same amount (-m.DELTA.k.sub.y). This condition is readily fulfilled simply by applying the corresponding gradient conditioning step for acquiring such an offset signal. Relations between the SMASH data set and these extra ACS-data are then used to extract the desired optimal complex weights, n.sub.l.sup.(m), as follows.

<u>US Reference Patent Number</u> (6): 5910728

<u>US Reference Group</u> (6): 5910728 19990600 Sodickson 324/309

Previous Doc Next Doc Go to Doc#

First Hit Fwd Refs
End of Result Set

Previous Doc Next Doc Go to Doc#

Generate Collection

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L15: Entry 6 of 6 File: USPT

Jun 8, 1999

DOCUMENT-IDENTIFIER: US 5910728 A

TITLE: Simultaneous acquisition of spatial harmonics (SMASH): ultra-fast imaging

with radiofrequency coil arrays

Brief Summary Text (6):

Often, however, there is a tradeoff between spatial resolution and imaging time, since higher resolution images require a longer acquisition time. This balance between spatial and temporal resolution is particularly important in cardiac MR, where fine details of coronary artery anatomy, for example, must be discerned on the surface of a rapidly beating heart. A high-resolution image acquired over a large fraction of the cardiac cycle will be blurred and distorted by bulk cardiac motion, whereas a very fast image may not have the resolution necessary to trace the course and patency of coronary arteries. Some of the fastest imaging sequences currently implemented, such as echo planar imaging (EPI), approach the goal of yielding images of reasonable resolution in a suitably short fraction of the cardiac cycle. Other approaches have also been tried to eliminate the effects of cardiac motion, including k-space segmentation, in which image acquisition is divided up over several cardiac cycles with ECG gating to ensure that the heart is in the same phase of systole or diastole during acquisition of each segment. Cine images of multiple cardiac phases may be pieced together with this technique, with partial acquisitions for different phases occurring in each cardiac cycle. One problem with this class of techniques is that respiratory motion can change the position of the heart over the course of several cardiac cycles. Partial acquisitions will then be misregistered, and artifacts will result. In an attempt to eliminate or adjust for respiratory motion, breath holds, respiratory gating, and navigator echo gating techniques have all been tried, and each of these techniques has had some signficant successes. Nevertheless, an imaging strategy which allowed high-resolution images to be acquired comfortably within one or two phases of the cardiac cycle would circumvent many of the difficulties and residual artifacts associated with these compensation techniques.

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Hit List

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Search Results - Record(s) 1 through 9 of 9 returned.

1. Document ID: US 20040147806 A1

Using default format because multiple data bases are involved.

L18: Entry 1 of 9

File: PGPB

Jul 29, 2004

PGPUB-DOCUMENT-NUMBER: 20040147806

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040147806 A1

TITLE: Intra vascular imaging method and apparatus

PUBLICATION-DATE: July 29, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Adler, Doron

Nesher

IL

US-CL-CURRENT: 600/109; 600/160

Full Title Citation Fro	nt Review Classification C	ate Reference Sequen	ces Attachments Claims	KUMC Draw De

2. Document ID: US 20030092995 A1

L18: Entry 2 of 9

File: PGPB

May 15, 2003

PGPUB-DOCUMENT-NUMBER: 20030092995

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030092995 A1

TITLE: System and method of positioning implantable medical devices

PUBLICATION-DATE: May 15, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Thompson, David L.

Andover

MN

US

US-CL-CURRENT: 600/473

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWC | Draw, De

3. Document ID: US 20030065271 A1

L18: Entry 3 of 9

File: PGPB

Apr 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030065271

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030065271 A1

TITLE: Cardiac catheter imaging system

PUBLICATION-DATE: April 3, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Khoury, Dirar S. Houston TX US

US-CL-CURRENT: 600/509

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw De

4. Document ID: US 20020068853 A1

L18: Entry 4 of 9 File: PGPB

Jun 6, 2002

PGPUB-DOCUMENT-NUMBER: 20020068853

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020068853 A1

TITLE: Intra vascular imaging method and apparatus

PUBLICATION-DATE: June 6, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Adler, Doron Nesher IL

US-CL-CURRENT: 600/160; 600/109

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims NMC Draw Do

5. Document ID: US <u>6741880</u> B1

L18: Entry 5 of 9 File: USPT May 25, 2004

US-PAT-NO: 6741880

DOCUMENT-IDENTIFIER: US 6741880 B1

TITLE: Method and apparatus for efficient stenosis identification and assessment

using MR imaging

DATE-ISSUED: May 25, 2004

Record List Display Page 3 of 5

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F. Rockville MD
Ho; Vincent B. North Bethesda MD
Saranathan; Manojkumar Rockville MD

US-CL-CURRENT: 600/419; 324/300, 324/307, 382/128, 600/407, 600/410, 600/420

Full Title Citation Front Review Classification Date Reference Citation Claims RWC Draw De

6. Document ID: US 6692430 B2

L18: Entry 6 of 9 File: USPT Feb 17, 2004

US-PAT-NO: 6692430

DOCUMENT-IDENTIFIER: US 6692430 B2

TITLE: Intra vascular imaging apparatus

DATE-ISSUED: February 17, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Adler; Doron Nesher IL

US-CL-CURRENT: 600/109; 600/108, 600/129, 600/178, 600/179

Full Title Gilation Front Review Classification Date Reference Claims NMC Draw Du

7. Document ID: US 6597937 B2

L18: Entry 7 of 9 File: USPT Jul 22, 2003

US-PAT-NO: 6597937

DOCUMENT-IDENTIFIER: US 6597937 B2

TITLE: Self-adaptive tracking and phase encoding during data collection for

contrast-enhanced MRA and dynamic agent uptake studies

DATE-ISSUED: July 22, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Liu; Kecheng Solon OH
Suri; Jasjit S. Mayfield Heights OH
Cull; Thomas S. Willoughby Hills OH

US-CL-CURRENT: 600/420; 324/306, 324/309, 600/410

Full Title Citation Front Review Classification Date Reference

Claims KMC Draw D

8. Document ID: US <u>6408201</u> B1

L18: Entry 8 of 9

File: USPT

Jun 18, 2002

US-PAT-NO: 6408201

DOCUMENT-IDENTIFIER: US 6408201 B1

TITLE: Method and apparatus for efficient stenosis identification in peripheral

arterial vasculature using MR imaging

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME

CITY

Full Title Citation Front Review Classification Date Reference

STATE

COUNTRY

ZIP CODE

Foo; Thomas K. F.

Rockville

MD

Ho; Vincent B.

North Bethesda

MD

US-CL-CURRENT: 600/410; 324/300, 324/307, 382/128, 600/419, 600/420

9. Document ID: US <u>6178346</u> B1

L18: Entry 9 of 9

File: USPT

Jan 23, 2001

US-PAT-NO: 6178346

DOCUMENT-IDENTIFIER: US 6178346 B1

TITLE: Infrared endoscopic imaging in a liquid with suspended particles: method and

apparatus

DATE-ISSUED: January 23, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE COUNTRY

Amundson; David C.

Boulder

CO

80302

Hanlin; H. John

Louisville

со

80027

US-CL-CURRENT: 600/473; 348/77, 600/160, 600/342

Full Title Citation Front Review Classification Date Reference.

Claims KWC Draw Do

Clear Generate Collection

Print

Fwd Refs

Bkwd Refs

Generate OACS

Documents

Term

NAVIGAT\$4

NAVIGAT	175
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NAVIGATBD	1
NAVIGATBR	5
NAVIGATC	2
NAVIGATDON	1
NAVIGATE	17529
NAVIGATED	4403
(L16 AND (NAVIGAT\$4)) PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	9

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Previous Page Next Page Go to Doc# First Hit Fwd Refs

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Generate Collection Print

L18: Entry 5 of 9

File: USPT

May 25, 2004

DOCUMENT-IDENTIFIER: US 6741880 B1

TITLE: Method and apparatus for efficient stenosis identification and assessment

using MR imaging

Detailed Description Text (11):

FIG. 4 shows the three-dimensional imaging pulse sequence 160 used in the present invention. Note that the method described is also applicable to two-dimensional pulse sequences as well. As shown in this preferred embodiment, the flow sensitizing gradients 162, 164, and 166 create a flow sensitive pulse sequence that behaves as a screening tool with high sensitivity to the detection of lesions. The flow sensitizing gradients 162, 164, and 166 are bi-polar gradients to accentuate phase cancellation and thereby increase flow dephasing. Alternatively, the flow dephasing in the first MR image can be accomplished by increasing the voxel size for greater distribution of the velocity vectors. In either case, the first (screening) MR image is acquired with high phase cancellation and low resolution, and therefore is acquired relatively fast. Generally, the first screening study can be accomplished with either a flow sensitive pulse sequence, as shown in FIG. 4, or with a contrast material enhanced imaging pulse sequence. The pulse sequence can be either a two-dimensional breath-held acquisition or a three-dimensional freebreathing acquisition that is respiratory-gated using a navigator echo, or similar respiratory gating technique.

<u>US Reference Patent Number</u> (2): 6408201

US Reference Group (2):

6408201 20020600 Foo et al. 324/300

Previous Doc Next Doc Go to Doc#

First Hit Fwd Refs

Previous Doc Next Doc Go to Doc#

Generate Collection Print

L18: Entry 8 of 9

File: USPT

Jun 18, 2002

DOCUMENT-IDENTIFIER: US 6408201 B1

TITLE: Method and apparatus for efficient stenosis identification in peripheral

arterial vasculature using MR imaging

<u>Detailed Description Text</u> (13):

FIG. 4 shows the phase contrast imaging pulse sequence 160 used in acquiring the series of first MR images. As shown in this preferred embodiment, the flow sensitizing gradients 162, 164, and 166 create a flow sensitive pulse sequence that behaves as a screening tool with high sensitivity to the detection of lesions. The flow sensitizing gradients 162, 164, and 166 are bi-polar gradients to accentuate phase cancellation and thereby increase flow dephasing. Alternatively, the flow dephasing in the series of first MR images can be accomplished by increasing the voxel size for greater distribution of the velocity vectors. In either case, the first (screening) MR images acquired with high phase cancellation and low resolution, and therefore are acquired relatively fast. Generally, the first screening study can be accomplished with either a flow sensitive pulse sequence, as shown in FIG. 4, or with a contrast material enhanced imaging pulse sequence. The pulse sequence can be either a two-dimensional breath-held acquisition or a three-dimensional free-breathing acquisition that is respiratory-gated using a navigator echo, or similar respiratory gating technique.

Previous Doc Next Doc Go to Doc#

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End of Result Set

Previous Doc Next Doc Go to Doc#

Generate Collection

Print

L18: Entry 9 of 9

File: USPT Jan 23, 2001

DOCUMENT-IDENTIFIER: US 6178346 B1

TITLE: Infrared endoscopic imaging in a liquid with suspended particles: method and

apparatus

Brief Summary Text (7):

The advantages to seeing structures in the cardiovascular system are numerous. Current methods of visualizing structures in the cardiovascular system are limited to radiography, ultrasound and angioscopy. Radiography is the standard visual tool used to image interventional cardiology procedures. It is applied by a large X-ray apparatus on a C-arm that will rotate around the patient through 180 degrees. The heart appears as a faint outline; while the metallic catheters are brightest. This allows for gross estimation of the catheter end to faint landmarks of the heart. The C-arm is frequently repositioned to give better viewing perspectives. Once the catheter has been navigated to the heart it can be placed in a coronary artery. In a self-contained entity such as an artery or vein, flouroscopic sensitive dye can be injected out the distal end of the catheter and viewed on the radiography camera for a short distance before it diffuses with blood. This technique is used to spot constricted areas in the coronary arteries. It has been shown that radiography, however, usually underestimates the degree of stenosis and therefore is only useful in providing a gross measure of flow.

Brief Summary Text (32):

An endoscopic imaging system, transparent to blood, would have enormous consequences in observing malformations, assisting catheter <u>navigation</u>, diagnosing cardiac conditions and observing procedures inside the heart or in the vasculature. The scope of this invention is not limited to cardiology but extends to other fields as well such as neurology and oncology. In addition, having "sight" in the vasculature will lead to many procedures unforeseen at this time. Today, laparoscopic procedures include suturing, excising and stapling. Similar procedures could be adapted for the cardiovascular system if the procedure could be viewed.

Brief Summary Text (36):

An important use of an infrared endoscope, in the heart, is to provide a visual guide for cardiac catheters navigating the vasculature. Catheters are inserted in the leg, arm or neck and snaked through the appropriate vasculature branches to the cardiac chamber of interest. Catheters are routinely placed in specific areas of the left and right atriums, left and right ventricles and the coronary sinus. Navigating the vasculature, to arrive at these destinations can be a troublesome procedure. This is currently accomplished by viewing the fluoroscopic image of the patient's chest. This image provides the physician with a faint image of the heart and its relation to the catheter, which is much brighter since it, is metallic or has fluoroscopic markers. If the catheter is positioned in the wrong branch of the vasculature, it eventually becomes apparent from the fluoroscopic image. At that point the physician retracts the catheter, rotates and tries again. He might even fully retract the catheter, reshape it and insert it again, hoping the new confirmation will allow catheter passage through the appropriate branches in the vasculature. Small branches of coronary arteries usually require many attempts before the correct branch is reached. Visual images of the catheter and the branch

in the vasculature would make this procedure much considerably easier and quicker. This embodiment could be accomplished by incorporating a visual guide with its own retractable guide wire. When a choice in direction is needed, the guide would extend and force the catheter to follow in a specific direction. If an image of the catheter reaching a branch in the vasculature were available, the physician could maneuver the catheter into the correct branch. Additionally, visualization will allow passage of smaller arteries previously not considered navigable, permitting angioplasty procedures and other therapies in these small arteries.

Detailed Description Text (113):

In this application, the infrared endoscope (43), with a stylet hole (44) on the side of the catheter (monorail configuration) is slid over a guide wire (45), which has been placed through the site of athlerosclerotic plaque undergoing an angioplasty procedure. The infrared endoscope is configured for side- and forward viewing to permit imaging the arterial lumen as well as a region ahead of the catheter. Each view will be presented separately or in a combined image on the video console (32). The side view will be most useful in providing detailed images of the coronary artery lumen at the plaque site. This view will permit the shape and nature (calcified or fatty) of the plaque to be determined, prior to angioplasty. Furthermore, the lumen of the deployed stent can be accurately characterized. Observation of stent buckling would suggest insertion of another angioplasty catheter to either apply more pressure to straighten the buckle, or insertion of an additional stent overlapping the original stent. The forward view would prove useful in catheter <u>navigation</u> through the vascular tree to the coronary artery containing the athlerosclerotic plaque deposit.

Detailed Description Text (116):

The infrared endoscope could image the plaque deposit from a forward-view--aiding in navigation of the vascular tree. With this wavelength, a cross-section approximately 4-5 millimeters, ahead of the infrared endoscope catheter, could be imaged. This permits navigation of smaller coronary arteries. Small coronary artery branches, not previously navigable with radiographic dye imaging techniques, could be identified and entered. When the lumens of some of these branches are reduced, deleterious cardiac consequences often occur. Prime examples are the coronary arteries (about one-millimeter in diameter) which supply blood to the natural pacemaker centers of the heart: the atrio-ventricular (AV) and sino-atrial (SA). These nodes control the rhythm of the atria and ventricles respectively. Disruption of blood supply of these arteries leads to rhythm disturbances such as slowdown or long pauses between heartbeats. These conditions are presently treated with a permanently implantable pacemaker--providing a minimum artificial rhythm for the patient. Using this infrared endoscope embodiment, these arteries could be identified and entered with the quide wire over which a small angioplasty catheter could be inserted to apply pressure, and possibly deploying a small stent to revascularize these arteries. In addition to navigation, the athlerosclerotic plaque deposit could be visualized -- without inserting the catheter through the plaque deposit. This would be important in visualizing plaque deposits that leave a lumen too small for passage of a catheter. This would permit smaller sized catheters to be inserted to apply angioplasty or plaque debulking procedures (atherectomy procedure).

Detailed Description Text (133):

Other applications or procedures where the second embodiment can be used include cardiac valve inspection (natural and artificial), viewing septal defects, myocardial infarctions and transpositions of the heart, viewing in-dwelling catheters and providing <u>navigation</u> guidance for catheters. Guiding electrode placement in catheters could also be realized with the infrared endoscope in, for example, pacing and defibrillator electrodes. Guidance of channels made in the heart during transmyocardial revascularization procedures would also be realized with the infrared endoscope.

Hit List

Clear Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

Search Results - Record(s) 1 through 15 of 15 returned.

1. Document ID: US 20040147806 A1

Using default format because multiple data bases are involved.

L22: Entry 1 of 15

File: PGPB

Jul 29, 2004

PGPUB-DOCUMENT-NUMBER: 20040147806

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040147806 A1

TITLE: Intra vascular imaging method and apparatus

PUBLICATION-DATE: July 29, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Adler, Doron Nesher IL

US-CL-CURRENT: 600/109; 600/160

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Atlachments | Claims | KWIC | Draw Do

2. Document ID: US 20030092995 A1

L22: Entry 2 of 15 File: PGPB May 15, 2003

PGPUB-DOCUMENT-NUMBER: 20030092995

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030092995 A1

TITLE: System and method of positioning implantable medical devices

PUBLICATION-DATE: May 15, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Thompson, David L. Andover MN US

US-CL-CURRENT: 600/473

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims NMC Draw De

Record List Display Page 2 of 7

3. Document ID: US 20030065271 A1

L22: Entry 3 of 15 File: PGPB Apr 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030065271

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030065271 A1

TITLE: Cardiac catheter imaging system

PUBLICATION-DATE: April 3, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Khoury, Dirar S. Houston TX US

US-CL-CURRENT: 600/509

Full Title Citation Front Review Classification Date Reference Sequences: Attachments Claims RMC Draw De

4. Document ID: US 20020068853 A1

L22: Entry 4 of 15 File: PGPB Jun 6, 2002

PGPUB-DOCUMENT-NUMBER: 20020068853

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020068853 A1

TITLE: Intra vascular imaging method and apparatus

PUBLICATION-DATE: June 6, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Adler, Doron Nesher IL

US-CL-CURRENT: 600/160; 600/109

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | DWC | Draw De

5. Document ID: US <u>6741880</u> B1

L22: Entry 5 of 15 File: USPT May 25, 2004

US-PAT-NO: 6741880

DOCUMENT-IDENTIFIER: US 6741880 B1

TITLE: Method and apparatus for efficient stenosis identification and assessment

using MR imaging

DATE-ISSUED: May 25, 2004

Record List Display Page 3 of 7

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F. Rockville MD Ho; Vincent B. North Bethesda MD

Saranathan; Manojkumar Rockville MD

US-CL-CURRENT: 600/419; 324/300, 324/307, 382/128, 600/407, 600/410, 600/420

Full Title Citation Front Review Classification Data Reference Claims KMC Draw Do

6. Document ID: US 6692430 B2

L22: Entry 6 of 15 File: USPT Feb 17, 2004

US-PAT-NO: 6692430

DOCUMENT-IDENTIFIER: US 6692430 B2

TITLE: Intra vascular imaging apparatus

DATE-ISSUED: February 17, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Adler; Doron Nesher IL

US-CL-CURRENT: 600/109; 600/108, 600/129, 600/178, 600/179

Full Title Citation Front Review Classification Date Reference Claims KMC Draw Du

7. Document ID: US 6675034 B2

L22: Entry 7 of 15 File: USPT Jan 6, 2004

US-PAT-NO: 6675034

DOCUMENT-IDENTIFIER: US 6675034 B2

TITLE: Magnetic resonance imaging using direct, continuous real-time imaging for

motion compensation

DATE-ISSUED: January 6, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Sussman; Marshall S. Toronto CA
Wright; Graham A. Toronto CA
Cunningham; Charles H. Toronto CA

US-CL-CURRENT: 600/410

Full Title Citation Front Review Classification Date Reference Claims KMC Draws De

8. Document ID: US 6667618 B2

L22: Entry 8 of 15

File: USPT

Dec 23, 2003

US-PAT-NO: 6667618

DOCUMENT-IDENTIFIER: US 6667618 B2

TITLE: Method for the operation of a magnetic resonance apparatus, whereby

positional changes are acquired with orbital navigator echos

DATE-ISSUED: December 23, 2003

INVENTOR-INFORMATION:

NAME CITY

STATE

COUNTRY

Thesen; Stefan

Meckenheim

DE

ZIP CODE

US-CL-CURRENT: 324/309; 324/307

Full Title Chation	Date Reference	(e/ziin:	KWIC Drain Dr
	 	***************************************	***************************************

9. Document ID: US 6597937 B2

L22: Entry 9 of 15

File: USPT

Jul 22, 2003

US-PAT-NO: 6597937

DOCUMENT-IDENTIFIER: US 6597937 B2

TITLE: Self-adaptive tracking and phase encoding during data collection for

contrast-enhanced MRA and dynamic agent uptake studies

DATE-ISSUED: July 22, 2003

INVENTOR-INFORMATION:

Cull; Thomas S.

NAME CITY STATE ZIP CODE COUNTRY

Liu; Kecheng Solon Suri; Jasjit S. Mayfiel OH OH

Mayfield Heights OH Willoughby Hills OH

US-CL-CURRENT: 600/420; 324/306, 324/309, 600/410

Full | Title | Citation | Front | Review | Classification | Date | Reference | March | March | March | Claims | KWC | Draw Do

10. Document ID: US 6552540 B2

L22: Entry 10 of 15

File: USPT

Apr 22, 2003

US-PAT-NO: 6552540

Record List Display Page 5 of 7

DOCUMENT-IDENTIFIER: US 6552540 B2

TITLE: Magnetic resonance method for forming a fast dynamic image

DATE-ISSUED: April 22, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Fuderer; Miha

Eindhoven

NL

US-CL-CURRENT: 324/309

Full Title Citation Front Review Classification Date Reference Claims KMC Draw Do

11. Document ID: US 6408201 B1

L22: Entry 11 of 15

File: USPT

Jun 18, 2002

US-PAT-NO: 6408201

DOCUMENT-IDENTIFIER: US 6408201 B1

TITLE: Method and apparatus for efficient stenosis identification in peripheral

arterial vasculature using MR imaging

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME

CITY

Rockville

STATE ZIP CODE

COUNTRY

Foo; Thomas K. F.

Ho; Vincent B.

North Bethesda

MD MD

US-CL-CURRENT: $\underline{600/410}$; $\underline{324/300}$, $\underline{324/307}$, $\underline{382/128}$, $\underline{600/419}$, $\underline{600/420}$

Full Title Citation Front Review Classification Date Reference

12. Document ID: US 6407549 B1

L22: Entry 12 of 15

File: USPT

Jun 18, 2002

US-PAT-NO: 6407549

DOCUMENT-IDENTIFIER: US 6407549 B1

TITLE: Magnetic resonance signal acquiring method and apparatus, recording medium

and magnetic resonance imaging apparatus

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME

CITY STATE

ZIP CODE

COUNTRY

Uetake; Nozomu

Tokyo

JP

Record List Display

Kosugi; Susumu

Tokyo

JP

US-CL-CURRENT: 324/307; 324/309, 324/322

Full Title Citation Front Review Classification Date Reference Claims KMC Draw De

13. Document ID: US <u>6289232</u> B1

L22: Entry 13 of 15

File: USPT

Sep 11, 2001

US-PAT-NO: 6289232

DOCUMENT-IDENTIFIER: US 6289232 B1

TITLE: Coil array autocalibration MR imaging

DATE-ISSUED: September 11, 2001

INVENTOR-INFORMATION:

NAME STATE ZIP CODE COUNTRY CITY

Jakob; Peter M.

Brookline Village

MA

Sodickson; Daniel K.

Cambridge

MA

Griswold; Mark

Brookline

MA

US-CL-CURRENT: 600/410; 324/307, 324/309, 324/318, 324/322, 600/422

Full Title Citation Front Review Classification Date Reference Claims KNMC Drawk De

14. Document ID: US 6178346 B1

L22: Entry 14 of 15

File: USPT

Jan 23, 2001

US-PAT-NO: 6178346

DOCUMENT-IDENTIFIER: US 6178346 B1

TITLE: Infrared endoscopic imaging in a liquid with suspended particles: method and

apparatus

DATE-ISSUED: January 23, 2001

INVENTOR-INFORMATION:

CITY

STATE ZIP CODE COUNTRY

Amundson; David C. Hanlin; H. John

Boulder Louisville CO

CO 80302

80027

US-CL-CURRENT: 600/473; 348/77, 600/160, 600/342

Full Title Chatton Front Review Classification Date Reference Claims KWC Draw D

Record List Display Page 7 of 7

15. Document ID: US <u>5910728</u> A

L22: Entry 15 of 15

File: USPT

Jun 8, 1999

US-PAT-NO: 5910728

DOCUMENT-IDENTIFIER: US 5910728 A

TITLE: Simultaneous acquisition of spatial harmonics (SMASH): ultra-fast imaging

with radiofrequency coil arrays

DATE-ISSUED: June 8, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Sodickson; Daniel Kevin

Cambridge

MA

US-CL-CURRENT: 324/309

Generate Collection Print Fwd Refs Bkwd Refs	Generate
Term	Documents
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NAVIGATA	1
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NAVIGATBD	1
NAVIGATBR	5
NAVIGATC	2
NAVIGATDON	1
NAVIGATE	17529
NAVIGATED	4403
(L21 AND (NAVIGAT\$4)).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	15

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Previous Page

Next Page

Go to Doc#

Hit List

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Search Results - Record(s) 1 through 23 of 23 returned.

1. Document ID: US 20040044279 A1

Using default format because multiple data bases are involved.

L23: Entry 1 of 23

File: PGPB

Mar 4, 2004

PGPUB-DOCUMENT-NUMBER: 20040044279

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040044279 A1

TITLE: System and method for adjusting image parameters based on device tracking

PUBLICATION-DATE: March 4, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Lewin, Jonathan S. Beachwood OH US Duerk, Jeffrey L. Avon Lake OH US

Elgort, Daniel Cleveland Heights OH US

US-CL-CURRENT: 600/407; 600/410, 600/424

Full Title Citation Front Review Classification Data Reference Sequences Attachments Claims KWIC Draw. De

2. Document ID: US 20040039276 A1

L23: Entry 2 of 23 File: PGPB Feb 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040039276

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040039276 A1

TITLE: Magnetic resonance imaging apparatus

PUBLICATION-DATE: February 26, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Ikezaki, Yoshikazu Tokyo JP

US-CL-CURRENT: 600/407

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims RMC Draw De

3. Document ID: US 20030052875 A1

L23: Entry 3 of 23

File: PGPB

Mar 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030052875

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030052875 A1

TITLE: System and method to obtain surface structures of multi-dimensional objects, and to represent those surface structures for animation, transmission and display

PUBLICATION-DATE: March 20, 2003

INVENTOR-INFORMATION:

CITY NAME

STATE COUNTRY RULE-47

Salomie, Ioan Alexandru

Brussels

BE

US-CL-CURRENT: 345/419

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWC Draw De

4. Document ID: US 20020087503 A1

L23: Entry 4 of 23

File: PGPB

Jul 4, 2002

PGPUB-DOCUMENT-NUMBER: 20020087503

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020087503 A1

TITLE: Medical image management system

PUBLICATION-DATE: July 4, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Judd, Robert M. Wheeling $_{
m IL}$ US Chen, Enn-Ling Chicago ILUS Kim, Raymond J. Chicago IL US

US-CL-CURRENT: 707/1

Full Title Citation Front Review Classification Date Reference Settlefices Attachments Claims RMC Draw De

5. Document ID: US 20020045816 A1

L23: Entry 5 of 23

File: PGPB

Apr 18, 2002

PGPUB-DOCUMENT-NUMBER: 20020045816

PGPUB-FILING-TYPE: new

Record List Display Page 3 of 9

DOCUMENT-IDENTIFIER: US 20020045816 A1

TITLE: Apparatus, systems, and methods for in vivo magnetic resonance imaging

PUBLICATION-DATE: April 18, 2002

INVENTOR-INFORMATION:

STATE COUNTRY RULE-47 NAME CITY Atalar, Ergin Columbia MD US Bottomley, Paul A. US Columbia MD Karmarkar, Parag Elliott City MD US Lardo, Albert C. Baldwin MDUS Zerhouni, Elias Pasadena MD US

US-CL-CURRENT: 600/423; 324/318

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWC Draw Do

6. Document ID: US 20020010384 A1

L23: Entry 6 of 23

File: PGPB

Jan 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020010384

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020010384 A1

TITLE: Apparatus and method for calibrating an endoscope

PUBLICATION-DATE: January 24, 2002

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Shahidi, Ramin San Francisco CA US Epitaux, Marc Sunnyvale CA US

US-CL-CURRENT: 600/118; 600/117

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims RMC Draw De

7. Document ID: US 20010051761 A1

L23: Entry 7 of 23 File: PGPB Dec 13, 2001

PGPUB-DOCUMENT-NUMBER: 20010051761

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010051761 A1

TITLE: Apparatus and method for calibrating an endoscope

PUBLICATION-DATE: December 13, 2001

Record List Display Page 4 of 9

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Khadem, Rasool

Palo Alto

CA

US

US-CL-CURRENT: 600/117; 600/118

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw De

8. Document ID: US 6745259 B2

L23: Entry 8 of 23

File: USPT

Jun 1, 2004

US-PAT-NO: 6745259

DOCUMENT-IDENTIFIER: US 6745259 B2

TITLE: OPEN NETWORK SYSTEM FOR I/O OPERATION INCLUDING A COMMON GATEWAY INTERFACE AND AN EXTENDED OPEN NETWORK PROTOCOL WITH NON-STANDARD I/O DEVICES UTILIZING

DEVICE AND IDENTIFIER FOR OPERATION TO BE PERFORMED WITH DEVICE

DATE-ISSUED: June 1, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE COUNTRY

Wagner; Richard Hiers

Dunwoody

GΑ

US-CL-CURRENT: 710/33; 370/401, 709/203, 709/227, 709/228, 710/11, 710/20

Full Title Citation Front Review Classification Date Reference Claims KMC Draw De

9. Document ID: US 6741880 B1

L23: Entry 9 of 23

File: USPT

May 25, 2004

US-PAT-NO: 6741880

DOCUMENT-IDENTIFIER: US 6741880 B1

TITLE: Method and apparatus for efficient stenosis identification and assessment

using MR imaging

DATE-ISSUED: May 25, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE

COUNTRY

Foo; Thomas K. F.

Ho; Vincent B.

Rockville

MD MD

Saranathan; Manojkumar

Rockville

MD

US-CL-CURRENT: 600/419; 324/300, 324/307, 382/128, 600/407, 600/410, 600/420

North Bethesda

Full Title Citation Front Review Classication Date Reference Claims SWC Draw 0:

Record List Display Page 5 of 9

10. Document ID: US 6694387 B2

L23: Entry 10 of 23 File: USPT Feb 17, 2004

US-PAT-NO: 6694387

DOCUMENT-IDENTIFIER: US 6694387 B2

TITLE: System for enabling smart card transactions to occur over the internet and

associated method

DATE-ISSUED: February 17, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Wagner; Richard Hiers Dunwoody GA

US-CL-CURRENT: 710/33; 370/401, 705/26, 709/203, 709/227, 709/228, 710/11, 710/20

Full Title Citation Front Review Classification Date Reference Citation Claims Will Draw D

11. Document ID: US 6684269 B2

L23: Entry 11 of 23 File: USPT Jan 27, 2004

US-PAT-NO: 6684269

DOCUMENT-IDENTIFIER: US 6684269 B2

TITLE: System and method for enabling transactions between a web server and a smart

card, telephone, or personal digital assistant over the internet

DATE-ISSUED: January 27, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Wagner; Richard Hiers Dunwoody GA

US-CL-CURRENT: 710/33; 370/401, 709/203, 709/227, 709/228, 710/11, 710/20

Full Title Citation Front Review Classification Date Reference Classification Classification Date Reference

☐ 12. Document ID: US 6628980 B2

L23: Entry 12 of 23 File: USPT Sep 30, 2003

US-PAT-NO: 6628980

DOCUMENT-IDENTIFIER: US 6628980 B2

TITLE: Apparatus, systems, and methods for in vivo magnetic resonance imaging

Record List Display Page 6 of 9

DATE-ISSUED: September 30, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Atalar; Ergin Columbia MD
Bottomley; Paul A. Columbia MD
Karmarkar; Parag Elliott City MD
Lardo; Albert C. Baldwin MD
Zerhouni; Elias Pasadena MD

US-CL-CURRENT: 600/423; 324/318

Full Title Gilation Front Review Classification Date Reference Classification Date Reference

13. Document ID: US 6517478 B2

L23: Entry 13 of 23 File: USPT Feb 11, 2003

US-PAT-NO: 6517478

DOCUMENT-IDENTIFIER: US 6517478 B2

TITLE: Apparatus and method for calibrating an endoscope

DATE-ISSUED: February 11, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Khadem; Rasool Palo Alto CA

US-CL-CURRENT: 600/117; 600/102, 73/1.79

Full Title Citation Fiont Review Classification Date Reference Claims RWC Disw.De

14. Document ID: US 6511418 B2

L23: Entry 14 of 23 File: USPT Jan 28, 2003

US-PAT-NO: 6511418

DOCUMENT-IDENTIFIER: US 6511418 B2

TITLE: Apparatus and method for calibrating and endoscope

DATE-ISSUED: January 28, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Shahidi; Ramin San Francisco CA Epitaux; Marc Sunnyvale CA

US-CL-CURRENT: 600/117; 600/102, 73/1.79

Record List Display Page 7 of 9

Full Title Citation Front Review Classification Date Reference Claims KMC DrawsDa

15. Document ID: US 6415046 B1

L23: Entry 15 of 23

File: USPT

Jul 2, 2002

US-PAT-NO: 6415046

DOCUMENT-IDENTIFIER: US 6415046 B1

TITLE: Method and apparatus for the early detection of tissue pathology using

wavelet transformation

DATE-ISSUED: July 2, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Kerut, Sr.; Edmund Kenneth Harahan LA 70123

US-CL-CURRENT: 382/128; 382/130

Full Title Citation Front Review Classification Date Reference Citation Claims IAMC Draw De

16. Document ID: US 6408201 B1

L23: Entry 16 of 23

File: USPT

Jun 18, 2002

US-PAT-NO: 6408201

DOCUMENT-IDENTIFIER: US 6408201 B1

TITLE: Method and apparatus for efficient stenosis identification in peripheral

arterial vasculature using MR imaging

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME CITY

STATE ZIP CODE

ZIP CODE COUNTRY

Foo; Thomas K. F.

Rockville

MD

Ho; Vincent B.

North Bethesda

MD

US-CL-CURRENT: $\underline{600}/\underline{410}$; $\underline{324}/\underline{300}$, $\underline{324}/\underline{307}$, $\underline{382}/\underline{128}$, $\underline{600}/\underline{419}$, $\underline{600}/\underline{420}$

17. Document ID: US 6353752 B1

L23: Entry 17 of 23

File: USPT

Mar 5, 2002

US-PAT-NO: 6353752

DOCUMENT-IDENTIFIER: US 6353752 B1

Record List Display Page 8 of 9

TITLE: Reduced field-of-view method for cine magnetic resonance imaging

DATE-ISSUED: March 5, 2002

INVENTOR-INFORMATION:

NAME CITY

2111

STATE ZIP CODE

COUNTRY

Madore; Bruno

Redwood City

CA

Pelc; Norbert J.

Los Altos

CA

US-CL-CURRENT: 600/410; 324/307, 324/309

Full Title Edation Front Review Classifi	cation Date Reference	Glaims KWC Draw Du
	and the state of t	
18. Document ID: US 628923	2 B1	
L23: Entry 18 of 23	File: USPT	Sep 11, 2001

US-PAT-NO: 6289232

DOCUMENT-IDENTIFIER: US 6289232 B1

TITLE: Coil array autocalibration MR imaging

DATE-ISSUED: September 11, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Jakob; Peter M.Brookline VillageMASodickson; Daniel K.CambridgeMA

Griswold; Mark Brookline MA

US-CL-CURRENT: 600/410; 324/307, 324/309, 324/318, 324/322, 600/422

Full Title Citation Front Review Classific	stion Date Reference	Claims KWIC Draw Do
☐ 19. Document ID: US 6178346	5B1	
L23: Entry 19 of 23	File: USPT	Jan 23, 2001

US-PAT-NO: 6178346

DOCUMENT-IDENTIFIER: US 6178346 B1

TITLE: Infrared endoscopic imaging in a liquid with suspended particles: method and

apparatus

DATE-ISSUED: January 23, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Amundson; David C. Boulder CO 80302 Hanlin; H. John Louisville CO 80027 Record List Display Page 9 of 9

US-CL-CURRENT: 600/473; 348/77, 600/160, 600/342

Full Title Citation Front Review Classification Date Reference

20. Document ID: US 6067465 A

L23: Entry 20 of 23

File: USPT

May 23, 2000

US-PAT-NO: 6067465

DOCUMENT-IDENTIFIER: US 6067465 A

** See image for Certificate of Correction **

TITLE: System and method for detecting and tracking reference position changes with

linear phase shift in magnetic resonance imaging

DATE-ISSUED: May 23, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F. Rockville MD King; Kevin F. Megnon WI

US-CL-CURRENT: 600/410; 324/309

Full Title Citation Front Review Classification Date Reference Claims KWC Draw De

☐ 21. Document ID: US 5910728 A

L23: Entry 21 of 23

File: USPT Jun 8, 1999

US-PAT-NO: 5910728

DOCUMENT-IDENTIFIER: US 5910728 A

TITLE: Simultaneous acquisition of spatial harmonics (SMASH): ultra-fast imaging

with radiofrequency coil arrays

DATE-ISSUED: June 8, 1999

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Sodickson; Daniel Kevin Cambridge MA

US-CL-CURRENT: <u>324/309</u>

Full little Citation Front Review Classification Cate Sciences (Claims & Claims & Color Quewal).

22. Document ID: EP 1391746 A2

Hit List

Clear Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

Search Results - Record(s) 1 through 17 of 17 returned.

1. Document ID: US 20040044279 A1

Using default format because multiple data bases are involved.

L27: Entry 1 of 17

File: PGPB

Mar 4, 2004

PGPUB-DOCUMENT-NUMBER: 20040044279

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040044279 A1

TITLE: System and method for adjusting image parameters based on device tracking

PUBLICATION-DATE: March 4, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Lewin, Jonathan S. Beachwood OH US
Duerk, Jeffrey L. Avon Lake OH US
Elgort, Daniel Cleveland Heights OH US

Elgort, Daniel Cleveland Heights OH

US-CL-CURRENT: 600/407; 600/410, 600/424

Full Title Citation Front Review	Classification Date Ref	erence Sequences At	lachments Claims KVMC	Dir≣ont De

2. Document ID: US 20040039276 A1

L27: Entry 2 of 17 File: PGPB Feb 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040039276

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040039276 A1

TITLE: Magnetic resonance imaging apparatus

PUBLICATION-DATE: February 26, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Ikezaki, Yoshikazu Tokyo JP

US-CL-CURRENT: 600/407

3. Document ID: US 20030052875 A1

L27: Entry 3 of 17

File: PGPB

Mar 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030052875

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030052875 A1

TITLE: System and method to obtain surface structures of multi-dimensional objects, and to represent those surface structures for animation, transmission and display

PUBLICATION-DATE: March 20, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Salomie, Ioan Alexandru Brussels BE

US-CL-CURRENT: 345/419

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims RWC Draw De

4. Document ID: US 20020045816 A1

L27: Entry 4 of 17

File: PGPB

Apr 18, 2002

PGPUB-DOCUMENT-NUMBER: 20020045816

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020045816 A1

TITLE: Apparatus, systems, and methods for in vivo magnetic resonance imaging

PUBLICATION-DATE: April 18, 2002

INVENTOR-INFORMATION:

CITY STATE COUNTRY NAME RULE-47 Atalar, Ergin Columbia MD US Bottomley, Paul A. Columbia US MD Karmarkar, Parag Elliott City MD US Lardo, Albert C. Baldwin MD US Zerhouni, Elias Pasadena ` MD US

US-CL-CURRENT: 600/423; 324/318

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWC Diam De

5. Document ID: US 6745259 B2

L27: Entry 5 of 17 File: USPT Jun 1, 2004

Record List Display Page 3 of 8

US-PAT-NO: 6745259

DOCUMENT-IDENTIFIER: US 6745259 B2

TITLE: OPEN NETWORK SYSTEM FOR I/O OPERATION INCLUDING A COMMON GATEWAY INTERFACE AND AN EXTENDED OPEN NETWORK PROTOCOL WITH NON-STANDARD I/O DEVICES UTILIZING DEVICE AND IDENTIFIER FOR OPERATION TO BE PERFORMED WITH DEVICE

DATE-ISSUED: June 1, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Wagner; Richard Hiers Dunwoody GA

US-CL-CURRENT: 710/33; 370/401, 709/203, 709/227, 709/228, 710/11, 710/20

Full Title Citation Front Review Classification Date Reference Claims RVC Draw Dr

6. Document ID: US 6741880 B1

L27: Entry 6 of 17 File: USPT May 25, 2004

US-PAT-NO: 6741880

DOCUMENT-IDENTIFIER: US 6741880 B1

TITLE: Method and apparatus for efficient stenosis identification and assessment

using MR imaging

DATE-ISSUED: May 25, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F. Rockville MD
Ho; Vincent B. North Bethesda MD
Saranathan; Manojkumar Rockville MD

US-CL-CURRENT: 600/419; 324/300, 324/307, 382/128, 600/407, 600/410, 600/420

Full Title Citation Front Review Classification Date Reference Claims KWC Draw Dr

7. Document ID: US 6694387 B2

L27: Entry 7 of 17 File: USPT Feb 17, 2004

US-PAT-NO: 6694387

DOCUMENT-IDENTIFIER: US 6694387 B2

TITLE: System for enabling smart card transactions to occur over the internet and

associated method

DATE-ISSUED: February 17, 2004

Record List Display Page 4 of 8

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Wagner; Richard Hiers Dunwoody GA

US-CL-CURRENT: <u>710/33</u>; <u>370/401</u>, <u>705/26</u>, <u>709/203</u>, <u>709/227</u>, <u>709/228</u>, <u>710/11</u>, <u>710/20</u>

Full Title Citation Front Review Classification Cate Reference Citation Citation KMC Draws Dr

8. Document ID: US 6684269 B2

L27: Entry 8 of 17 File: USPT Jan 27, 2004

US-PAT-NO: 6684269

DOCUMENT-IDENTIFIER: US 6684269 B2

TITLE: System and method for enabling transactions between a web server and a smart

card, telephone, or personal digital assistant over the internet

DATE-ISSUED: January 27, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Wagner; Richard Hiers Dunwoody GA

US-CL-CURRENT: 710/33; 370/401, 709/203, 709/227, 709/228, 710/11, 710/20

Full Title Citation Front Review Classification Date Reference Citation Claims Kild Draw De

9. Document ID: US 6628980 B2

L27: Entry 9 of 17 File: USPT Sep 30, 2003

US-PAT-NO: 6628980

DOCUMENT-IDENTIFIER: US 6628980 B2

TITLE: Apparatus, systems, and methods for in vivo magnetic resonance imaging

DATE-ISSUED: September 30, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Atalar; Ergin Columbia MD
Bottomley; Paul A. Columbia MD
Karmarkar; Parag Elliott City MD
Lardo; Albert C. Baldwin MD
Zerhouni; Elias Pasadena MD

US-CL-CURRENT: 600/423; 324/318

Record List Display Page 5 of 8

Full Title Citation Front Review Classification Date Reference Citation Clasms KMC Draw De

10. Document ID: US 6415046 B1

L27: Entry 10 of 17

File: USPT

Jul 2, 2002

US-PAT-NO: 6415046

DOCUMENT-IDENTIFIER: US 6415046 B1

TITLE: Method and apparatus for the early detection of tissue pathology using

wavelet transformation

DATE-ISSUED: July 2, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Kerut, Sr.; Edmund Kenneth Harahan LA 70123

US-CL-CURRENT: 382/128; 382/130

Full Title Citation Front Review Classification Date Reference Claims RMC Draw Do

11. Document ID: US 6408201 B1

L27: Entry 11 of 17

File: USPT

Jun 18, 2002

US-PAT-NO: 6408201

DOCUMENT-IDENTIFIER: US 6408201 B1

TITLE: Method and apparatus for efficient stenosis identification in peripheral

arterial vasculature using MR imaging

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F. Rockville MD

Ho; Vincent B. North Bethesda MD

US-CL-CURRENT: 600/410; 324/300, 324/307, 382/128, 600/419, 600/420

Full Title Citation Front Review Classification Date Reference Claims RMC Draw Do

12. Document ID: US 6289232 B1

L27: Entry 12 of 17

File: USPT

Sep 11, 2001

US-PAT-NO: 6289232

DOCUMENT-IDENTIFIER: US 6289232 B1

Record List Display Page 6 of 8

TITLE: Coil array autocalibration MR imaging

DATE-ISSUED: September 11, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Jakob; Peter M. Brookline Village MA
Sodickson; Daniel K. Cambridge MA
Griswold; Mark Brookline MA

US-CL-CURRENT: 600/410; 324/307, 324/309, 324/318, 324/322, 600/422

Full Title Ctation Front Review Classication Date Reference Claims NWC Diams D.

13. Document ID: US 6178346 B1

L27: Entry 13 of 17 File: USPT Jan 23, 2001

US-PAT-NO: 6178346

DOCUMENT-IDENTIFIER: US 6178346 B1

TITLE: Infrared endoscopic imaging in a liquid with suspended particles: method and

apparatus

DATE-ISSUED: January 23, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Amundson; David C. Boulder CO 80302 Hanlin; H. John Louisville CO 80027

US-CL-CURRENT: 600/473; 348/77, 600/160, 600/342

Fulls Title Citation Front Review Classification Date Reference Citation Claims KMC Draw Du

L27: Entry 14 of 17 File: USPT May 23, 2000

US-PAT-NO: 6067465

DOCUMENT-IDENTIFIER: US 6067465 A

** See image for <u>Certificate of Correction</u> **

TITLE: System and method for detecting and tracking reference position changes with

linear phase shift in magnetic resonance imaging

DATE-ISSUED: May 23, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F.

Rockville

MD

King; Kevin F.

Megnon

WI

US-CL-CURRENT: 600/410; 324/309

Full Title Citation Front Review Classification Date Reference Claims KMC Draw Do

☐ 15. Document ID: US 5910728 A

L27: Entry 15 of 17

File: USPT

Jun 8, 1999

US-PAT-NO: 5910728

DOCUMENT-IDENTIFIER: US 5910728 A

TITLE: Simultaneous acquisition of spatial harmonics (SMASH): ultra-fast imaging

with radiofrequency coil arrays

DATE-ISSUED: June 8, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE COUNTRY

Sodickson; Daniel Kevin

Cambridge

MA

US-CL-CURRENT: 324/309

Full Title Citation Front Review Classification Date Reference Claims KMC Draw De

16. Document ID: EP 1391746 A2

L27: Entry 16 of 17

File: EPAB

Feb 25, 2004

PUB-NO: EP001391746A2

DOCUMENT-IDENTIFIER: EP 1391746 A2

TITLE: Parallel magnetic resonance imaging using navigator echos

Full Title Citation Front Review Classification Date Reference Claims RMC Draw Do

17. Document ID: CN 1487305 A, EP 1391746 A2, US 20040039276 A1, JP 2004073538 A, KR 2004017777 A

L27: Entry 17 of 17

File: DWPI

Apr 7, 2004

DERWENT-ACC-NO: 2004-182325

DERWENT-WEEK: 200441

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TITLE: Magnetic resonance imaging (MRI) apparatus for parallel imaging of subject has post-image producing device, which forms image with full field-of-view based on produced intermediate image and phase-corrected sensitivity matrix

Record List Display Page 8 of 8

Generate Collection Print Fwd Refs Bkw	d Refs Generate
Term	Documents
IMAG\$4	0
IMAG	5056
IMAGA	98
IMAGABIE	1
IMAGABLE	602
IMAGADES	1
IMAGAE	16
IMAGAES	5
IMAGAGE	4
IMAGAGED	2

Display Format:		hange Format
Previous Page	Nevt Page	Go to Doc#

Hit List

Clear Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

Search Results - Record(s) 1 through 12 of 12 returned.

1. Document ID: US 20040039276 A1

Using default format because multiple data bases are involved.

L29: Entry 1 of 12

File: PGPB

Feb 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040039276

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040039276 A1

TITLE: Magnetic resonance imaging apparatus

PUBLICATION-DATE: February 26, 2004

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Ikezaki, Yoshikazu Tokyo JP

US-CL-CURRENT: 600/407

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWC Drawt Da

2. Document ID: US 20030052875 A1

L29: Entry 2 of 12 File: PGPB Mar 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030052875

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030052875 A1

TITLE: System and method to obtain surface structures of multi-dimensional objects, and to represent those surface structures for animation, transmission and display

PUBLICATION-DATE: March 20, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY RULE-47

Salomie, Ioan Alexandru Brussels BE

US-CL-CURRENT: 345/419

Full Title Citation Front Review Classification Data Reference Sequences Attachments Claims KNNC Draws Do

3. Document ID: US 20020045816 A1

L29: Entry 3 of 12

File: PGPB

Apr 18, 2002

PGPUB-DOCUMENT-NUMBER: 20020045816

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020045816 A1

TITLE: Apparatus, systems, and methods for in vivo magnetic resonance imaging

PUBLICATION-DATE: April 18, 2002

INVENTOR-INFORMATION:

COUNTRY RULE-47 NAME CITY STATE Atalar, Ergin US Columbia MD Bottomley, Paul A. US Columbia MD US Karmarkar, Parag Elliott City MD Lardo, Albert C. Baldwin MD US Zerhouni, Elias Pasadena MD US

US-CL-CURRENT: 600/423; 324/318

Full Title Citation	Front Review Classification	Date Reference Sequen	ces Attachments Claims	KUMC Drawa De

4. Document ID: US 6741880 B1

L29: Entry 4 of 12

File: USPT

May 25, 2004

US-PAT-NO: 6741880

DOCUMENT-IDENTIFIER: US 6741880 B1

TITLE: Method and apparatus for efficient stenosis identification and assessment

using MR imaging

DATE-ISSUED: May 25, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F. Rockville MD
Ho; Vincent B. North Bethesda MD
Saranathan; Manojkumar Rockville MD

US-CL-CURRENT: 600/419; 324/300, 324/307, 382/128, 600/407, 600/410, 600/420

Full Title Citation	Frant Review	Classification Date:	Reference	Clai	ms KWC Draw De
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5. Document ID: US 6628980 B2

L29: Entry 5 of 12

File: USPT

Sep 30, 2003

Record List Display Page 3 of 6

US-PAT-NO: 6628980

DOCUMENT-IDENTIFIER: US 6628980 B2

TITLE: Apparatus, systems, and methods for in vivo magnetic resonance imaging

DATE-ISSUED: September 30, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Atalar; Ergin Columbia MD
Bottomley; Paul A. Columbia MD
Karmarkar; Parag Elliott City MD
Lardo; Albert C. Baldwin MD
Zerhouni; Elias Pasadena MD

US-CL-CURRENT: 600/423; 324/318

Full Title Citation Front Review Classification Date Reference Section Section 5.

6. Document ID: US 6408201 B1

L29: Entry 6 of 12 File: USPT Jun 18, 2002

US-PAT-NO: 6408201

DOCUMENT-IDENTIFIER: US 6408201 B1

TITLE: Method and apparatus for efficient stenosis identification in peripheral

arterial vasculature using MR imaging

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F. Rockville MD Ho; Vincent B. North Bethesda MD

US-CL-CURRENT: 600/410; 324/300, 324/307, 382/128, 600/419, 600/420

7. Document ID: US 6289232 B1

L29: Entry 7 of 12 File: USPT Sep 11, 2001

US-PAT-NO: 6289232

DOCUMENT-IDENTIFIER: US 6289232 B1

TITLE: Coil array autocalibration MR imaging

DATE-ISSUED: September 11, 2001

Record List Display Page 4 of 6

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Jakob; Peter M. Brookline Village MA

Sodickson; Daniel K. Cambridge MA Griswold; Mark Brookline MA

US-CL-CURRENT: 600/410; 324/307, 324/309, 324/318, 324/322, 600/422

Full Title Citation Front Review Classification Date Reference Citation Claims KMC Draw D

8. Document ID: US 6178346 B1

L29: Entry 8 of 12 File: USPT Jan 23, 2001

US-PAT-NO: 6178346

DOCUMENT-IDENTIFIER: US 6178346 B1

TITLE: Infrared endoscopic imaging in a liquid with suspended particles: method and

apparatus

DATE-ISSUED: January 23, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Amundson; David C. Boulder CO 80302 Hanlin; H. John Louisville CO 80027

US-CL-CURRENT: 600/473; 348/77, 600/160, 600/342

Full Title Citation Front Review Classification Date Reference Communication Claims NMC Draws 0-

9. Document ID: US 6067465 A

L29: Entry 9 of 12 File: USPT May 23, 2000

US-PAT-NO: 6067465

DOCUMENT-IDENTIFIER: US 6067465 A

** See image for Certificate of Correction **

TITLE: System and method for detecting and tracking reference position changes with

linear phase shift in magnetic resonance imaging

DATE-ISSUED: May 23, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Foo; Thomas K. F. Rockville MD King; Kevin F. Megnon WI

US-CL-CURRENT: 600/410; 324/309

10. Document ID: US 5910728 A

L29: Entry 10 of 12

File: USPT

Jun 8, 1999

US-PAT-NO: 5910728

DOCUMENT-IDENTIFIER: US 5910728 A

TITLE: Simultaneous acquisition of spatial harmonics (SMASH): ultra-fast imaging

Full Title Citation Front Review Classification Date Reference Claims AMC Draw De

with radiofrequency coil arrays

DATE-ISSUED: June 8, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Sodickson; Daniel Kevin

Cambridge

MA

US-CL-CURRENT: <u>324/309</u>

Full Title Citation Front Review Classification Date Reference Citation Claims KMC DrawsDo

11. Document ID: EP 1391746 A2

L29: Entry 11 of 12

File: EPAB

Feb 25, 2004

PUB-NO: EP001391746A2

DOCUMENT-IDENTIFIER: EP 1391746 A2

TITLE: Parallel magnetic resonance imaging using navigator echos

Full Title Citation Front Review Classification Date Reference Claims KMC Draw Do

12. Document ID: CN 1487305 A, EP 1391746 A2, US 20040039276 A1, JP 2004073538 A, KR 2004017777 A

L29: Entry 12 of 12

File: DWPI

Apr 7, 2004

DERWENT-ACC-NO: 2004-182325

DERWENT-WEEK: 200441

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TITLE: <u>Magnetic resonance imaging (MRI)</u> apparatus for parallel <u>imaging</u> of subject has post<u>-image</u> producing device, which forms <u>image</u> with full field-of-view based on produced intermediate image and phase-corrected sensitivity matrix

Term	Documents
PHASE	1764874
PHASES	355775
PHASING	21040
PHASINGS	231
PHASED	37894
PHASEDS	0
(28 AND (PHASING OR PHASED OR PHASE)).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	12
(L28 AND (PHASE OR PHASING OR PHASED)).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	12

Display Format :	-	Change F	ormat

<u>Previous Page</u> <u>Next Page</u> <u>Go to Doc#</u>